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A Macromarketing View of Sustainable Development in Vietnam*

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Abstract

The authors apply methods and perspectives from several disciplines to explore the effects of Vietnam's economic development on various ecosystems, to offer a macromarketing view of sustainable development in Vietnam. An adapted version of the Sustainable Society Index was used to assess Vietnam's sustainability, how Vietnam's measures compare to other countries, with implications for future sustainable-development. Among several findings, Vietnam earns favorable sustainability ratings in absolute terms for water resources, healthy living, energy use, greenhouse gases, genuine savings and employment. Ominously, Vietnam and some of its nearby neighbors post poor scores for energy savings and education; going forward, energy savings and a well-educated population will likely be required to ensure favorable sustainability measures. Drawing on macromarketing explorations of complex and interdependent systems, key factors are considered to redress unsustainable resource exploitation and degradation. Particular attention is given to the complexities and dilemmas inherent to waterways, such as the Mekong River Basin and Delta, and Vietnam's groundwater. The authors argue for multi-win goals, systemic understanding, stakeholder inclusion, and resolutions via cooperation and constructive engagement - including projects, products, services, and institutional leadership for best practices designed and administered to enhance sustainability and citizen/societal well-being.

Key Words: Vietnam, Sustainability, Economic Development, Constructive Engagement, Complex Systems

A Macromarketing View of Sustainable Development in Vietnam

Vietnam's socioeconomic transition to a market-oriented economy has been impressive and in some respects exemplary (e.g., Shultz and Pecotich 1997; Dapice et al. 2008). Year on year, Vietnam continues to post encouraging gains (Chheang and Wong 2016); not least of which are tens-of-millions of people lifted from poverty (World Bank 2017). But what have been the effects of this economic development on sustainability; what are the challenges for future sustainability in Vietnam? Further, what effect does the economic development in the countries of the Mekong River Basin have on Vietnam's Mekong Delta and other water resources? This study addresses these important questions using a macromarketing view.

Macromarketing examines the complex interplay among markets, marketing, and society (Hunt and Burnett 1982). It is viewed by macromarketing scholars as a provisioning agent to facilitate exchange and to benefit societies, governments, businesses, and individuals – locally, regionally, and globally (Fisk 1981). Macromarketing scholars also assert that marketing, when administered thoughtfully and sustainably, is particularly well positioned to help improve the human condition (Shultz 2007; Layton 2009).

Macromarketing is characterized by taking a holistic approach to markets and marketing activity to understand systemic complexities within society (Peterson 2013). Metaphorically, macromarketing enables one to zoom-out for the purpose of viewing a phenomenon endemic to complex system(s) – sustainability, for example. By taking such a view, one can notice how key catalytic institutions (e.g., governments, businesses, NGOs) do (or could) cooperate to engage the system. In this way, these institutions can proffer good policies and best practices to sustain

that system (and sustain it safely, inclusively and fairly) for as many stakeholders as possible, in an enduring way (Layton 2015; Shultz et al. 2017).

Sustainability and sustainability research are topics integral to macromarketing, and interest in them is growing in other disciplines (e.g., Meng 2014; Mittelstaedt et al. 2014; Viswanathan et al. 2014). Impactful contributions to both the science and practice of sustainability increasingly require research that reaches beyond "traditional disciplinary boundaries" (*Environmental Management* 2017). In this spirit and building on more than two decades of cross-disciplinary, multi-method field research in Vietnam – we adapt and use a sustainability index (the Sustainable Society Index) found to be valuable in the assessment of countries on three dimensions of development corresponding to the triple-bottom-line approach: (1) economic, (2) natural environment, and (3) people living in the society and in local communities (Simkins and Peterson 2016), including Vietnamese (Nguyen et al. 2014). We analyze Vietnam's current sustainability using the Sustainable Society Index (SSI) (Kerk and Manuel 2013). Following this analysis, we apply a macromarketing view of country development and its effect on future sustainable-development. This analysis and subsequent considerations draw on seminal research from various disciplines designed to study and to redress social traps, often in the form of the commons dilemma (e.g., Hardin 1968; Dawes 1980; Messick and Brewer 1983; Ostrom 1990, 2009) and macromarketing resolutions to it (Shultz and Holbrook 1999; Shultz 2015).

Vietnam's remarkable growth

The "Four Asian Tigers" – Singapore, Hong Kong, Taiwan, and South Korea began serious economic growth in the 1960s and became developed countries as a result of rapid economic growth in the 1980s and the 1990s (Cateora et al. 2011, p. 313). Despite the remarkable stories of

the Four Asian Tigers, few other developing countries have had similar records of growth and prosperity. Using the narrow view of development as growth in GDP per capita, macromarketing research suggests that rich countries grow about 2% per year (Dapice 2008). For poor nations to catch-up over a long-period spanning decades would require at least a 3% growth rate each year. Since 1975, only 11 countries that are not rich have grown this fast. Vietnam is one of them. Since *Đổi Mới* (reform), including the 1986 policy-shift toward the market, the Vietnamese economy has posted annual per capita growth of 5.2% or more through 2014 (Warren 2016). In 1993, 55 % of Vietnamese lived in poverty and the country had an annual GNP per capita of $200 (Dollar and Litvack 1998). Most of the other ten countries also are Asian: China, India, Indonesia, Laos, Sri Lanka, Thailand, Botswana, Chile, Lebanon, and Poland.

Two of these countries that have economies that have grown an average of 3 % or more since 1975 are neighbors of Vietnam—Laos and Thailand. Table 1 presents a profile of Vietnam along with Laos, Thailand, and Cambodia (which lies adjacent to Vietnam's southern border to the west). As can be seen, Vietnam has the second-largest land mass (behind Thailand), but posts the highest population, with more than 90 million people. Thus, Vietnam claims the highest population density of 301.4 persons/km^2—more than twice that of Thailand's (United Nations 2015). This higher population density, by itself, has important implications for sustainability in Vietnam. This is especially relevant because the population density for Vietnam was 157.2 persons/km^2 in 1975, but rose to 301.4 persons//km^2 in 2015. This is almost a doubling of the population density in the last 40 years. Given the current rate of population growth (1.12% annual growth), the population will grow by about one million persons per year in the future. (The rate of growth peaked in 1987 at 2.5% annual growth.) The UN predicts

Vietnam's population will peak in 2045 with about 110 million people. Thirty-five percent of the population currently lives in urban areas, but in 2045 the UN predicts this percentage to be just over 50%. Similarly to many other developing countries, population shifts mean the rural population will continue declining as cities swell in numbers.

	Area (km^2)	Population in millions - 2015	Rate of Annual Pop. Growth (%) 2010-2015	Pop. Density ($/km^2$) - 1975	Pop. Density ($/km^2$) - 2015	GDP (nominal)	GDP Rank (of 214 countries)	HDI (2015)
Cambodia	181,035	15.578	1.62	42.8	88.3	$1,308	154	0.563
Laos	236,800	6.802	1.66	13.2	29.5	$2,029	142	0.586
Thailand	513,120	67.959	0.38	82.9	133.0	$5,842	89	0.740
Vietnam	331,210	93.448	1.12	157.2	301.4	$2,307	133	0.683

Table 1. Profiles of Vietnam and Three Neighboring Countries (United Nations 2015)

Table 1 also shows that while Vietnam's scores on the Human Development Index (HDI- a UNDP measure intended to assess life expectancy, education and economic well-being) of .683 is closer to Thailand's HDI of .740, the nominal GDP per capita (Purchasing Power Parity - PPP) in Vietnam ($6,424) is closer to those of Cambodia and Laos ($3,735 and $6,186, respectively) than Thailand's ($16,916). Among the four countries, only Thailand is in the top half of the 214 countries ranked on GDP per capita (PPP) in 2016 (IMF 2016).

In sum, Table 1 suggests Vietnam is a densely populated country that is becoming more densely populated and more urbanized, each year. Its economy will predictably grow substantially in the coming years. The implication is that unless steps are taken in Vietnamese society to pursue sustainable development, Vietnam's development, sustainable and even just

economic, will likely be side tracked. Such a path and outcome would have negative consequences for the natural environment of Vietnam and for the health and well-being of the Vietnamese.

Gauging sustainability in Vietnam

The core of the study's assessment of Vietnam's sustainable development will use the SSI. Large-scale global indexes such as the SSI, which has been published biannually since 2006, offer valuable insights into important issues related to macromarketing and sustainability.

SSI is particularly well-suited to measure and study sustainability on a global scale. It is one of the very few indexes that includes all three well-being dimensions: human, environmental and economic. The first two dimensions are important because they are goals to be achieved: full sustainability for human and environmental well-being. One cannot exist or progress without the others. On the other hand, economic well-being is only one of three goals. It is necessary to enable progress on the way towards overall sustainability. All three dimensions of well-being complement and complete each other in examining issues of sustainability.

Simkins and Peterson (2016) assessed the value of the SSI for macromarketing research. They found that the SSI compared favorably to three other society-level indexes, such as (1) the Legatum Prosperity Index; (2) Transparency International's Corruption Perceptions Index; and (3) the Euromoney Country Risk Index. Accordingly, Simkins and Peterson recommend the SSI to researchers interested in analyzing countries on the sustainability dimensions of the SSI.

The SSI features 21 dimensions for rating sustainability across seven categories and three dimensions of well-being (Figure 1). Table 2 presents the measures and sources of the measures for the dimensions of the SSI.

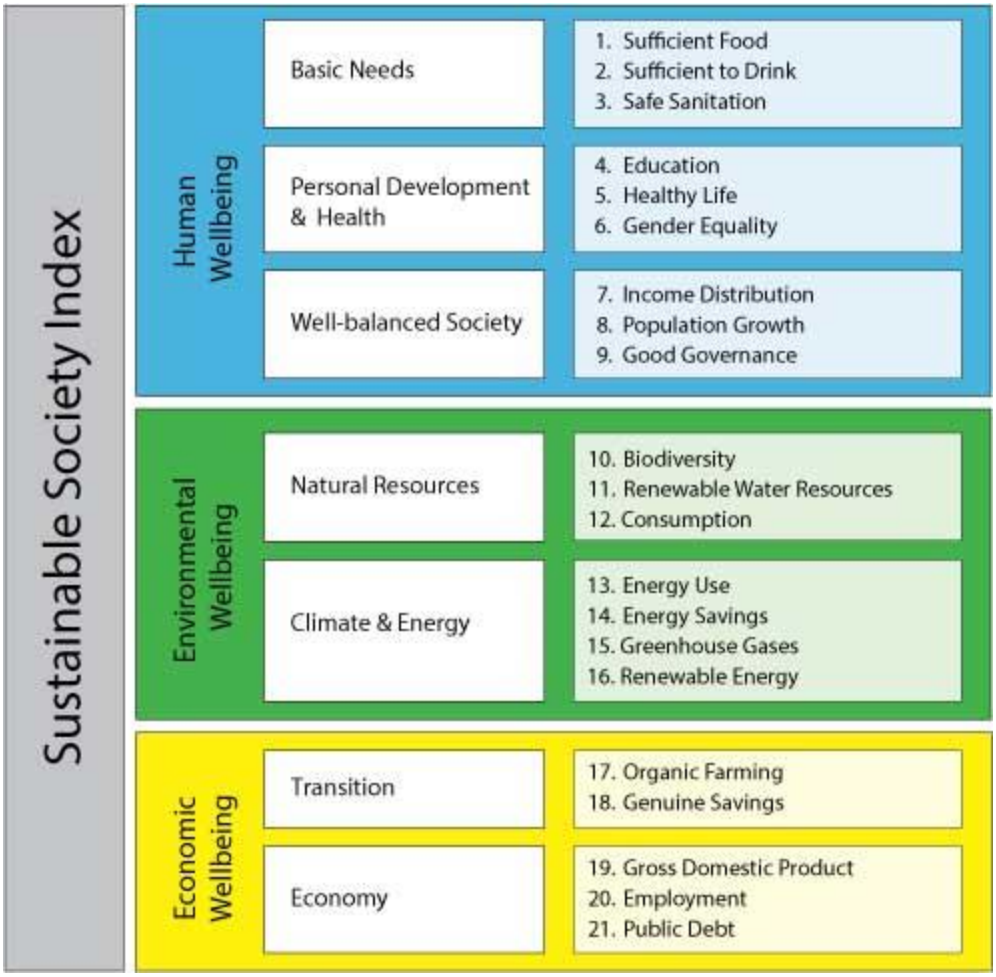

Figure 1. The SSI's 3 Dimensions, 7 Categories and 21 Dimensions
Source: Sustainable Society Foundation http://www.ssfindex.com/ssi/framework/

Name	Measure	Source
Sufficient Food	Number of undernourished people in % of total population	Food & Agr. Org. of UN
Sufficient to Drink	Number of people in % of total population, with sustainable access to an improved water source	Food & Agr. Org. of UN
Safe Sanitation	Number of people in % of total population, with sustainable access to improved sanitation	Food & Agr. Org. of UN
Education	Gross enrolment ratio for primary, secondary & tertiary education (combined)	UNESCO
Healthy Life	Life expectancy at birth in number of healthy life years	WHO HALE

Gender Equality	Gender Gap Index	WEF
Income Distribution	Ratio of income of the richest 10% to the poorest 10% people in a country	World Bank
Population Growth	5-years change in total population size (% of total population)	World Bank
Good Governance	Sum of the six Worldwide Governance Indicators	World Bank
Biodiversity part a – forest area	10 years change in forest area	Protected Planet
Biodiversity part b – protected area	Size of protected land area (in % total land area)	Protected Planet
Renewable Water Resources	Annual water withdrawals (m^3 per capita) as % of renewable water resources	FAO Aquastat
Consumption	Ecological Footprint minus Carbon Footprint	GFN
Energy Use	Energy use (tons of oil equivalent per capita)	IEA
Energy Savings	Change in Energy use over 4 years (%)	IEA
Greenhouse Gases	CO2 emissions per person per year	IEA
Renewable Energy	Consumption of renewable energy as % of total energy consumption	IEA
Organic Farming	Area for Organic Farming in % of total agricultural area of a country	FiBL
Genuine Savings	Genuine Savings (Adjusted Net Savings) as % of Gross National Income (GNI)	World Bank
GDP	Gross Domestic Product per capita, PPP, current international $	IMF
Employment	Number of unemployed people in % of total labor force	World Bank
Public Debt	The level of Public Debt of a country in % of GDP	IMF

Table 2. SSI dimensions, measures and source of measures (SSI 2017)

Figure 2 depicts the SSI ratings for Vietnam (solid line) and the rest of the world (dotted line). A scale of 0 to 10 is used with higher values representing increasingly favorable ratings for sustainability. Reviewing Figure 2 by beginning at the top of the radar chart and moving in a clockwise direction, one can see similarity between Vietnam and the rest of the world along the dimensions making up the right side of the radar chart. Vietnam fares a bit better than does the

rest of the world on sufficient drinking water, healthy life, population growth and renewable water resources. However, Vietnam lags a bit on education and good governance.

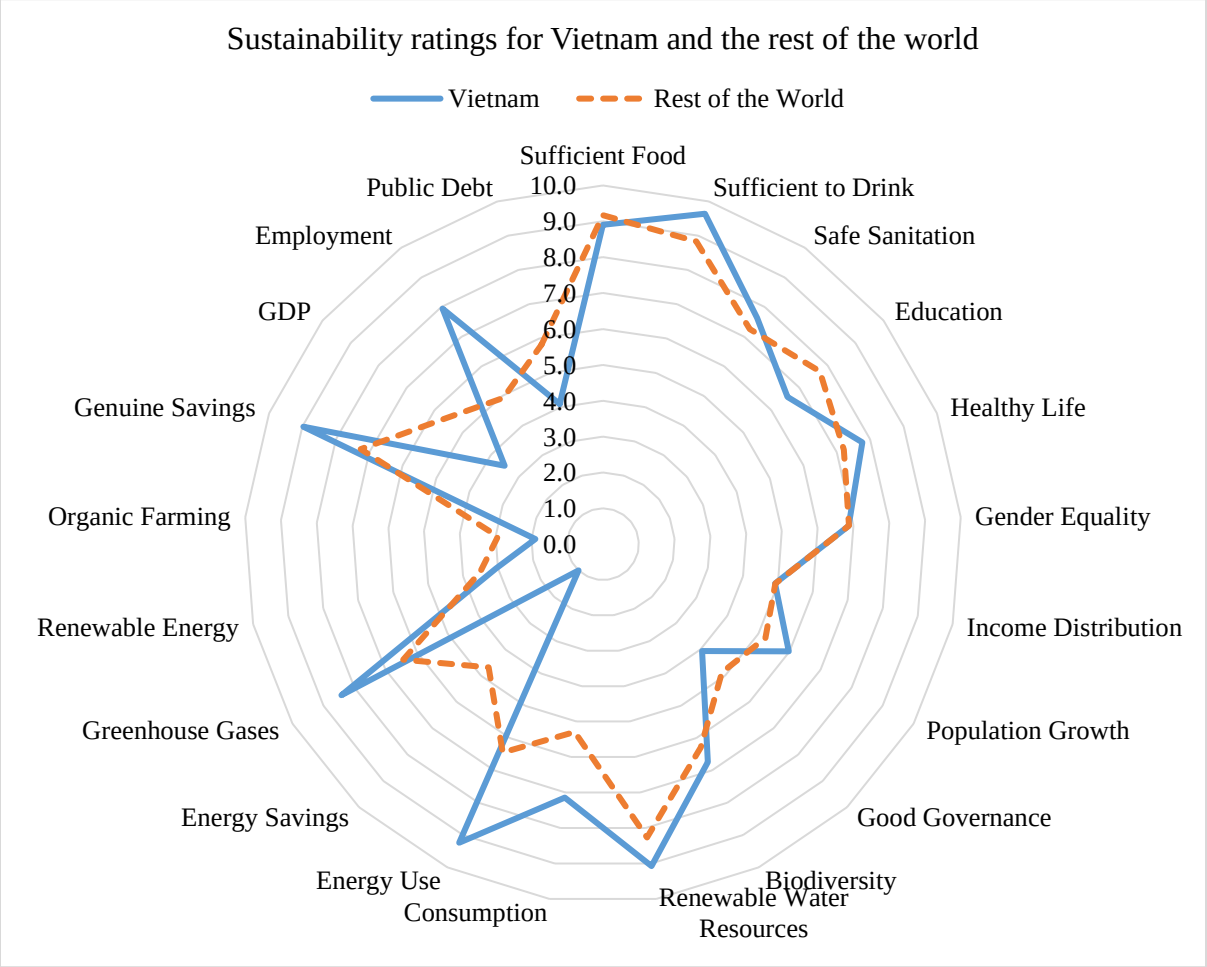

Figure 2. Vietnam's 2016 Performance on the 21 Dimensions of the Sustainable Society Index. The Dotted Line Represents the Average of 153 Other Countries of the World (SSI, 2017).

Continuing from the bottom and up the left side of Figure 2, more pronounced differences can be observed. Vietnam posts better ratings on population growth, biodiversity, renewable water resources, consumption, energy use, greenhouse gases, genuine savings, and employment. However, Vietnam lags the rest of the world in sustainability ratings for education, energy savings (change in energy usage over the last 4 years), organic farming, GDP, and public debt. Each of these lagging conditions can be attributed to Vietnam being a growing, developing

country. That is, a burgeoning population can strain resources for education; economic growth requires energy consumption; markets for organic farming are not well established for a country trying to catch-up in GDP per capita; developing countries may allocate resources to some projects, which can thrust the country into unexpected/undesirable levels of debt. However, Vietnam is a high user per unit of real GDP (PPP) and tends not to use technologies in ways that would improve its efficient use of energy (Nguyen 2015). This is due primarily to short-term financial savings by using old technologies and not planning for, or simply choosing not to purchase or implement, technologies and practices for better energy efficiency.

Researchers of this study used a series of one-sample t-tests to compare the 153 countries of the world with Vietnam's value on each of the 21 dimensions. These t-tests disclosed that the averages of the world's countries and Vietnam were the same for only three dimensions: (1) safe sanitation, (2) income distribution, and (3) renewable energy. All the other t-tests returned t-values that were statistically significant at $p \leq 0.05$. In sum, the separation between the points representing Vietnam and the rest of the world in Figure 2 are meaningful differences—except for the three dimensions just mentioned.

Figure 3 depicts the SSI ratings for Vietnam (solid line) and three nearby countries—Cambodia, Laos and Thailand (dotted line). Reviewing Figure 3 by beginning at the top of the radar chart and moving in a clockwise direction, one can see similarity between Vietnam and these three countries along the dimensions making up the right side of the radar chart. Vietnam fares better than the three nearby countries on sufficient drinking water, and a healthy life. However, Vietnam lags on the dimensions of income distribution and biodiversity.

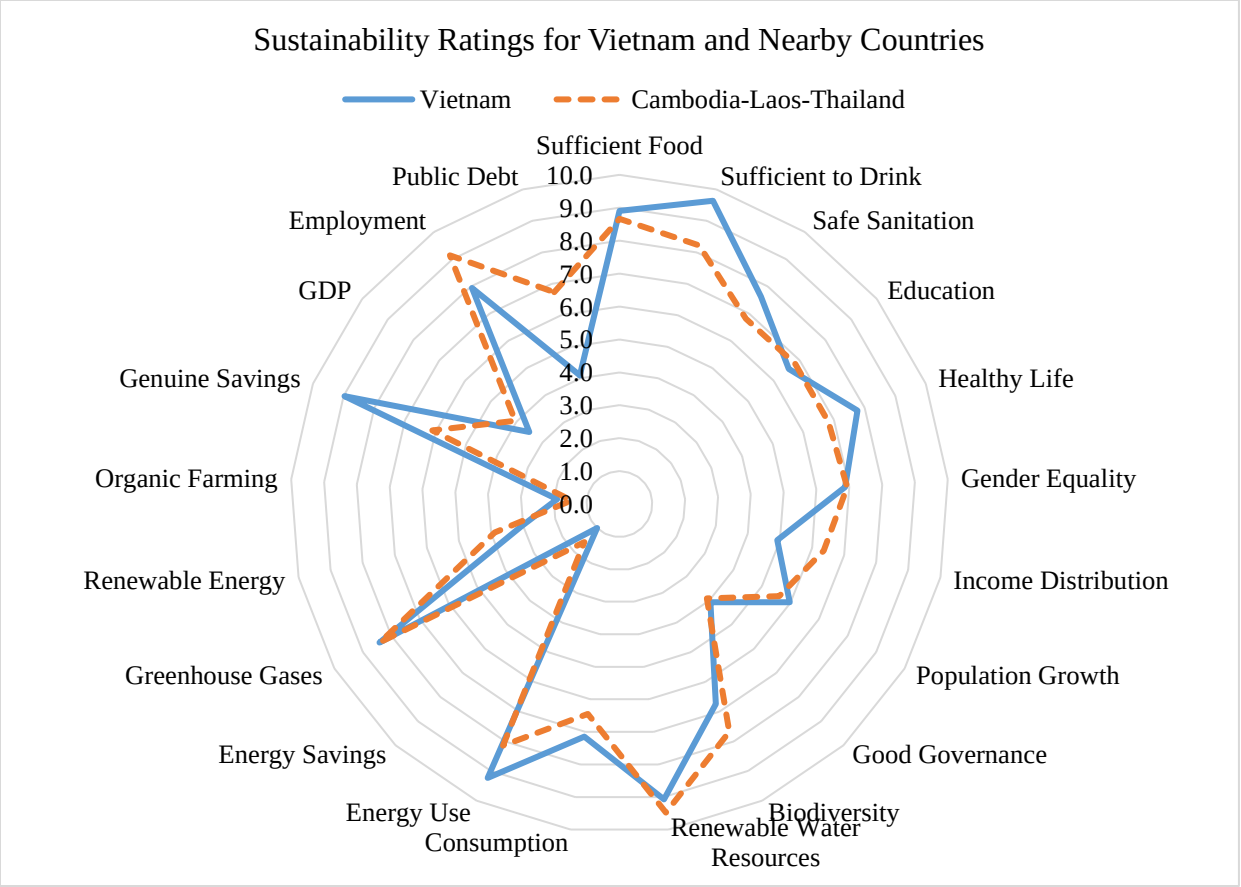

Figure 3. Vietnam's 2016 Performance on the 21 Dimensions of the Sustainable Society Index. The Dotted Line Represents the Average for Cambodia, Laos and Thailand (SSI, 2017).

Continuing from the bottom and up the left side of Figure 3, Vietnam and the three nearby countries post almost identically poor ratings for energy savings (change in energy usage in last four years) and favorable ratings for greenhouse gases. More pronounced differences can be observed as one goes up the left side of the radar chart. Vietnam posts better ratings on consumption, energy use, and genuine savings. However, Vietnam lags the three nearby countries in sustainability ratings of employment, and public debt.

In sum, Vietnam earns favorable sustainability ratings in absolute terms for water resources, healthy living, energy use, greenhouse gases, genuine savings and employment. Ominously, Vietnam and its nearby neighbors post the worst scores for energy savings, which

means that the energy usage for these countries over the last four years has increased markedly. Given Vietnam's intention to pursue economic growth in the future, it can be inferred that even more energy will be used by Vietnam. This will likely put downward pressure on other sustainability dimensions in which Vietnam now does well, such as healthy living and greenhouse gases.

Challenges resulting from country development in Vietnam

Macromarketing researchers have identified several factors vis-à-vis developing-country contexts for business practitioners, public policy makers, NGOs, and their stakeholders (e.g., Layton 2009; Dapice 2012; Peterson 2013; Nguyen, Rahtz and Shultz 2014; Shultz et al. 2012; Shultz 2015); especially salient are: (1) culture, (2) population, (3) geography and climate, (4) economy, and (5) the political system (cf. Shultz, Rahtz and Sirgy 2017). Some discussion follows, with emphasis on a Vietnamese context, and implications for the understanding, management and sustainability of complex eco-systems such as Vietnam and the Mekong River Basin.

Culture

Culture is the learned meaning-system of a people-group, which provides a guide for those in the group about how to think and to behave (Cateora et al. 2011). Values, beliefs, and attitudes are commonly shared by members of a cultural group. These can support and promote prosperity because they strongly affect perceptions of individuals and organizations about the way to win (Porter 2000).

Grondona (2000) proposed a framework to explain the differences between what he terms progress-prone cultures and progress-resistant cultures. A worldview of progress-prone cultures includes personal agency for the individual, as compared to fatalism for the progress-resistant

culture. The expandability of wealth characterizes progress-prone cultures, as opposed to a peasant mentality that wealth is finite (if someone gains, someone else must lose). In terms of values and virtues, progress-prone cultures reinforce trust in public or commercial activities; values such as punctuality are deemed important. By comparison, progress-resistant cultures reinforce mistrust and have less concern for punctuality.

Economic behavior in progress-prone cultures is influenced by regard given to entrepreneurial effort in competitive markets. Progress-resistant cultures see rent-seeking (taking advantage of what their position allows for self-gain) by cultural elites in government as the privilege granted to those who attain power.

Social behavior in progress-prone cultures can be characterized by a self-governing citizenry in which half the population (women) are able to function as the equals of the other half (men). Progress-resistant cultures tend to carry patriarchal hierarchy in which male chiefs or strong men dominate others because of their place in the tribe or kinship group. Women might run the home, but usually not business, government, or civic organizations.

Vietnam offers a mix of both progress-resistant and progress-prone values in its culture (see also Hoang 2000; Jamieson 1995). The country's sustained economic growth since the implementation of *Đổi Mới* is evidence of a progress-prone culture. The numerous businesspersons and their endeavors -- from street vendors, to micro-enterprises and small- to medium-size enterprises (SMEs), to larger scale operations and global exporters -- reveal many Vietnamese who view themselves as agentic and are entrepreneurial. The system in which these entrepreneurs function, perhaps even thrive, however is often viewed as corrupt, even by government officials (Vietnam News 2016), which can lead to favoritism and cynicism, and may have a chilling effect on desirable economic growth.

One unique feature of Vietnam, which might reinforce cynicism and fatalism, is the high level of employment in security agencies accounting for more than one-sixth of its 43-million work force; that is, 6.7 million employed in uniformed and non-uniformed roles (Ghosh 2013). By comparison, Vietnam's largest industry (textile manufacturing) employs about two million workers – about one-third of the state's total working in security services. This imbalance and the resource allocation required to maintain it, leads some observers to wonder whether both economic growth and sustainability might be enhanced if more resources were dedicated to them, particularly since threats to Vietnam's economic growth and environmental sustainability inevitably are threats to the country's security.

Population

Population characteristics contribute much to country development. Important aspects of a population for country are (1) urbanization, (2) health, and (3) education. Urbanization is predicted to continue its rise in countries of the world through 2050. In Vietnam, the percentage of those living in urban areas is expected to climb from its current level of 35% to more than 50% by 2045 (UNDP 2017).

While the concentration of people living in cities makes industrialization more of a possibility, in many countries the move to cities exacerbates housing shortages resulting in expansive slums. Vietnam's continuing urbanization will put pressure on the natural environment as enormous amounts of building materials will be needed to construct and maintain new housing for those moving to cities.

The health and education of a country's population contribute much to its development because they represent important elements of human capital (Baumol 2007, p. 159). According to the SSI analysis, Vietnam has a favorable rating for healthy living as measured by life

expectancy at birth for healthy years. Vietnam rates better than the rest of the world, as well as Cambodia, Laos, and Thailand. This bodes well for Vietnam's future sustainable development.

Vietnam's sustainable development would brighten if education improved. The SSI analysis disclosed that Vietnam lagged a bit when compared to the rest of the world (6.6 compared to 7.7 for the rest of the world) on the gross enrollment ratio for primary, secondary and tertiary education (combined). While Vietnam leads Cambodia and Laos on this metric of education (6.6 to 6.3), Vietnam trails Thailand (6.6 to 7.9). If the Vietnamese struggle to keep enough students in school or neglect sustainability curricula, the students who attend are likely not learning about sustainable development to the degree needed by Vietnamese society in the future.

Geography & Climate

Temperate regions of the world tend to be more developed than the tropical countries, with the island country of Singapore being a notable exception. Of the 24 countries classified as "industrial," not one lies between the Tropics of Cancer and Capricorn (about 23 degrees north and south of the equator) except a bit of Australia and the Hawaiian Islands (Hausmann 2001). All of Vietnam lies within the Tropic of Cancer. Such tropical areas feature countries with markedly lower GDPs, but high population densities.

Some social scientists have argued that climate helps determine the means of production (small farming in the temperate regions, plantation farming in the tropics). With such profound effect on production, climate would thereby indirectly affect the organization of society and the possibilities for development.

Coastal location (which results in lower transportation costs and increased access to markets and new technological approaches and ideas) would be another dimension of geography

critical to development. Vietnam has the 35th longest coastline of any country of the world (World by Map 2017). Fortunately for Vietnam, it is not a landlocked country with the incumbent complications (risks) for foreign trade (Wolf 2004). Although coastal countries also face unique challenges and dilemmas, as we will see below.

Scholars have developed three reasons why tropical countries are consistently poorer than temperate ones. These include, agricultural factors, health factors, and factors related to the mobilization of scientific resources (Sachs 2006).

While agriculture in the tropics has some potential advantages – ecosystem diversity and longer growing seasons, for example – systemic challenges from production to consumption often result in reduced productivity of perennial crops and staple foods. This incongruity tends to be explained by (1) weak soils, high soil erosion, and depletion of nutrients due to tropical rain forest conditions, (2) water control difficulties and risk of drought in wet-dry tropics, (3) high incidence of pests, and (4) a high rate of spoilage for food in storage.

The incidence of infectious disease is also higher in the tropics. Flies and mosquitoes that flourish in the warm climate carry vector-borne diseases, such as malaria, dengue fever, and Japanese encephalitis. Vietnam contends with these and other infectious diseases (World Health Organization 2015), in part due to its climate and geography.

Economy

Economies of countries can be described in several ways, such as level of development, or percentage of the labor force working in agricultural, manufacturing, or service sectors, and of course the previously cited statistics regarding GDP. For example, 41% of the labor force in the US worked on farms in 1900s. However, by 2000, only 1.9% of the labor force worked on farms (Dimitri et al. 2005). In the early part of the 20th century, the US industrialized. But after 1950,

it entered a post-industrialization phase in which the service sector (such as healthcare, education, financial services, government, media, entertainment, hospitality, and tourism) became dominant (Lee and Mather 2008).

Figure 4 presents a comparison of a post-industrial economy (the US), two industrializing economies (China and Vietnam), and an agricultural economy (Ethiopia) based on the percentage of the labor force in each country working in service, industry and agriculture (Central Intelligence Agency (CIA) 2017). As can be seen, most workers in the US and China are in the services sector (83% and 36.1%), while most in Vietnam and in Ethiopia are in agriculture (48% and 85%). Note that Vietnam reports updated measures for the first quarter of 2017, with agricultural labor 40.5% of the total, services 34%, and industry 25.5%; the agricultural sector shrank from 47.6% in 2009 to 40.5% in 2017 (General Statistics Office of Vietnam 2017).

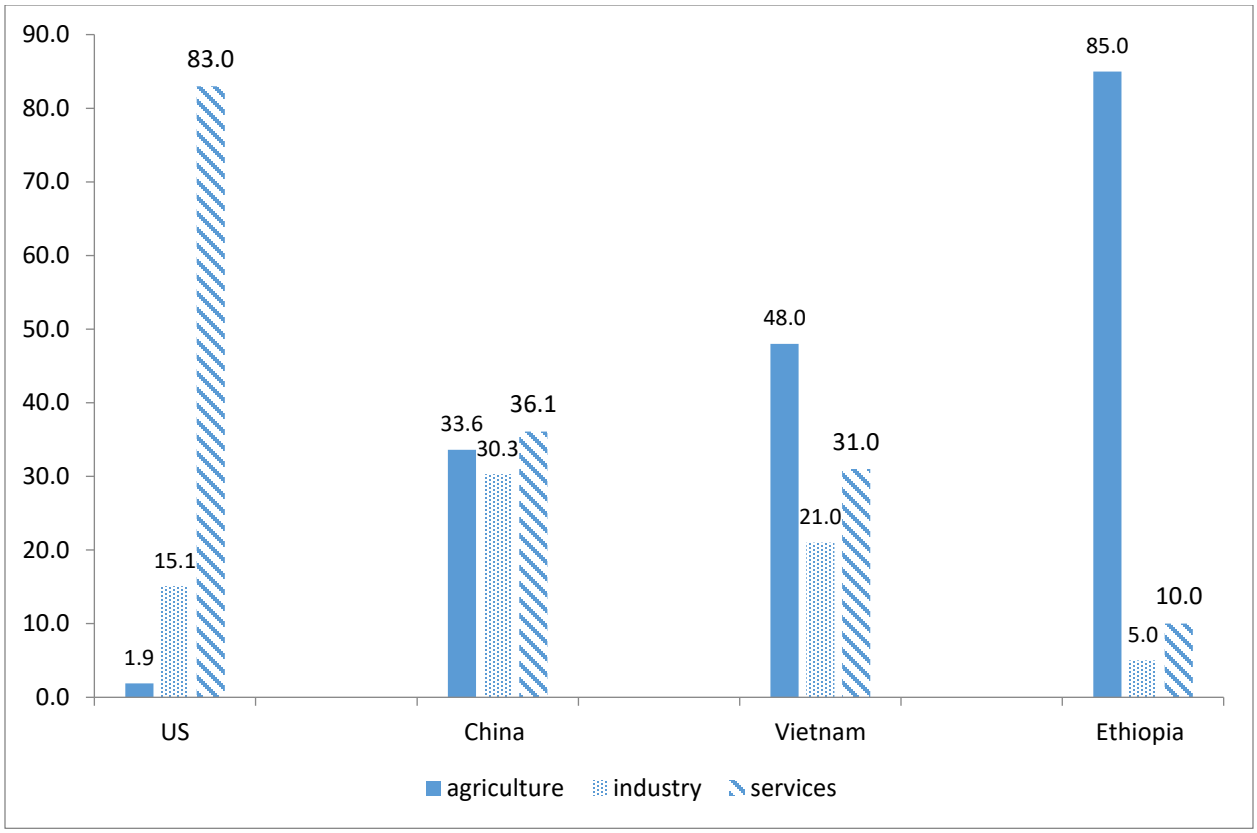

Figure 4. Labor Sector Percentages for the US, China, Vietnam and Ethiopia (CIA 2017).

Figure 5 presents a comparison of Vietnam with three nearby countries, Cambodia, Laos and Thailand, based on the percentage of the labor force in each country working in service, industry and agriculture (CIA 2017a). As can be seen, Cambodia and Vietnam have very similar profiles across the three labor sectors. Laos is a more agrarian society with 73.1% working in the agriculture sector. Thailand might represent an economy to which government leaders in Vietnam would prefer with more working in the service sector (51% in Thailand compared with 31% in Vietnam).

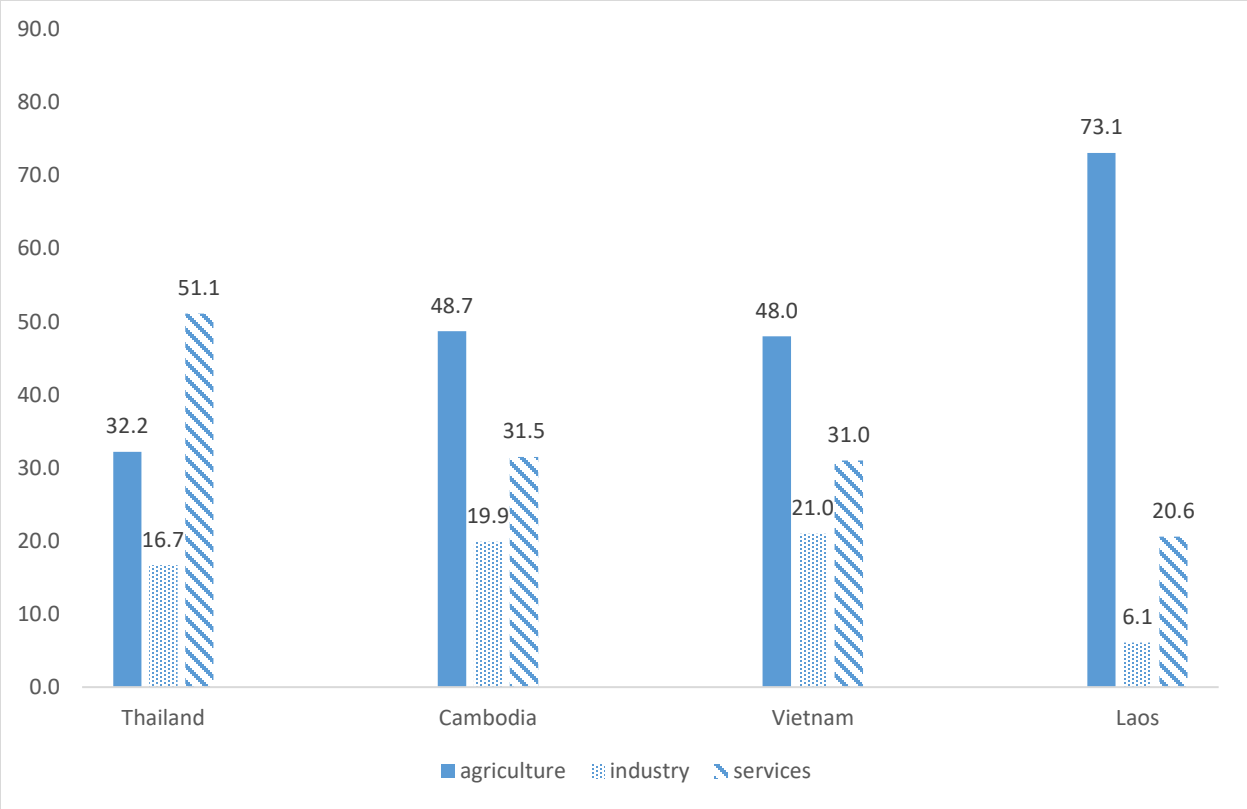

Figure 5. Labor Sector Percentages for Thailand, Cambodia, Vietnam and Laos (SSI, 2017).

Political System

Vietnam, officially the Socialist Republic of Vietnam, is a single party, constitutional state administered under the leadership of the Communist Party of Vietnam and a National Assembly. Key institutions are led by administrators including the Prime Minister, Deputy Prime Ministers and Ministers. A judiciary and various associations and committees also are integral to the political system. The country is divided into 58 provinces and 5 municipalities; provincial and municipal authorities historically have enjoyed some autonomy from national authorities (Shultz et al. 1994; Karnow 1997; CIA 2017b; Embassy of the Socialist Republic of Vietnam 2017). Particularly relevant to sustainability are the following six ministries: (1) Natural Resources and Environment, (2) Agriculture and Rural Development, (3) Health, (4) Science and

Technology, (5) Industry and Trade (includes the General Department of Energy), and (6) Planning and Investment.

While those devoted to political models favored in the West might take exception to some of Vietnam's political organization and practices, any visitor to Vietnam would immediately recognize a fairly open society permitting considerable personal freedoms, including nearly full integration into the global economy and all the privileges and trappings it offers: freedom to travel, to choose one's profession and to accumulate personal wealth, and to experience/purchase ubiquitous global brands, the Internet and media. The political system of Vietnam, for better and for worse, now permits—and often encourages—tens-of-millions of Vietnamese to embrace a consumer society.

The political, social and economic model that now exists is attractive to multinational enterprises. Vietnam moreover is an investment destination because of its political stability, commitment to global institutions such as the World Trade Organization, and the growing purchasing power of Vietnamese consumers. And while Vietnam still receives some unfavorable marks for authoritarian practices (Freedom House 2017) and corruption (Transparency International 2017), the government's 10 year Socio-Economic Development Strategy emphasizes the need for structural reforms, *environmental sustainability* (italics added), social equity and emerging issues of macroeconomic stability; that plan also defines three "breakthrough areas": (1) modern skills development; (2) *improving market institutions* (italics added), and (3) further infrastructure development (World Bank 2017).

It should be noted that conventional wisdom suggests limited political influence and some curbs on civil liberties could hinder citizens' expressed concerns about the natural environment, which in turn suggests further environmental degradation; the likes of which can be

seen (and felt) in Ho Chi Minh City, for example. Vietnam's commercial hub and largest urban center is engulfed in exhaust and particulate matter from 7.4 million motor scooters that are currently registered in the city and an additional 1.1 million brought in by immigrants (Thanh Nien News 2016). Ho Chi Minh City has a population of approximately 8 million people and 8.5 million motor scooters. (Two million new motor scooters became registered since 2011.) Despite the surge in heavy polluting two-cycle engines on the motor scooters, the 2017 Earth Day rallies in Vietnam focused on issues, which for the moment are less controversial and perhaps seen as more urgent, such as garbage collection and water conservation (Vietnam Breaking News 2017).

Yet the aforementioned integration into the global economy, and the technology that comes with it (e.g., smart phones and the Internet), also have given the Vietnamese people a more resonant voice. From Ha Long to Cuu Long, ecological challenges – and sometimes full-on disasters - now are photographed with smart phones by engaged citizens; images are quickly disseminated via digital media, enhancing awareness, suggesting culpability, and forcing policy change and various forms of restitution (e.g., Smallteacher 2016). All of which hints at an Environmental Movement in Vietnam (Hoang 2017), and a potential way forward for more sustainable policies and practices in a complex geo-political-economic-social system replete with conflicting interests and social traps that jeopardize sustainability.

Macromarketing Redux: complexities and sustainable commons resolutions in Vietnam

What becomes clear in the case of Vietnam's sustainability (and indeed the sustainability of the entire planet) is a complex and often conflicted geographic, economic, social, political and marketing system. In this marketing system, myriad stakeholders seek to optimize short-term individual (or exclusionary) outcomes at long-term cost to a larger group and the greater good.

Such conditions are often referred to as social dilemmas (e.g., Dawes 1980; Messick and Brewer 1983). The most recognizable illustration of these social dilemmas is the commons dilemma (e.g., Hardin 1968; Ostrom 2009, 2012). Such commons dilemmas threaten the sustainability of several delicate ecosystems and the lives of millions of people – both inside and outside Vietnam—who depend on them. Those ecosystems include forests, arable land, the atmosphere, villages and urban spaces, groundwater, and rivers and the East Sea into which they flow.

Despite the many successes resulting from Vietnam's accelerating transition, the unsustainable pressures on the country's commonly-shared—and often exploited—ecosystems ironically are exacerbated by a blend of myopic policy, reckless marketing and voracious consumption, locally and globally. *Macromarketing* orientation and solutions therefore are imperative to the sustainability of Vietnam's resources and the well-being of those who rely on the goods, services and experiences derived from them.

Building on solutions to the commons dilemma and other social traps offered in the voluminous literature on the topic, from Aristotle (4th CBC) to Ostrom (2012), we explore macromarketing solutions first posited by Shultz and Holbrook (1999), expanded by Peterson (2013) and Simkins and Peterson (2016), and applied to complexities of and conflicts in Vietnam. These involve the development of Quang Ninh Province (Nguyen et al. 2014), greater Vietnam (Shultz 2012), the Mekong River Basin (Shultz 2015), and distressed communities, more generally (Shultz et al. 2017). The ideas below are framed vis-à-vis four broad themes: (1) multi-win goals, (2) systemic understanding, (3) stakeholder inclusion, (4) marketing via cooperation and constructive engagement.

Multi-Win Goals: toward sustainable well-being

The elusive, highest-order goal is of course sustainable well-being. Environmental degradation, including pollution, over-harvesting, deforestation, excessive excavation and consumption, and endangerment of species, threaten that goal. In Vietnam, similarly to other countries of the world, such environmental degradation does not necessarily trigger meaningful responses from governments or citizens. Individuals, organizations and governments fall prey to social traps, which must be resolved and redressed. Moreover, note that the term sustainable well-being suggests concern for physical and biological resource management as well as the health and wellness of people and their communities. Physical resources, individuals and communities comprise an interdependent and complex ecosystem. These complex systems in which humans live, and the plethora of opportunities to opt for incentives counter to the highest-order goal often cause people, governments and companies to "defect" from the mission of sustainable well-being. That is, defectors seek short-term individual goals rather than long-term multi-win goals that benefit all stakeholders.

Systemic Understanding

An appreciation for complex system(s) is paramount. A thorough understanding of them, which may require the exercise of systems mapping to consider the various factors and forces that can affect sustainable well-being, is critical toward the explicit goal of sustainable quality-of-life (QOL) and community health, wellness and prosperity (Shultz et al. 2012). Figure 6, the latest permutation emerging from longitudinal studies of distressed and developing communities and economies, offers a template of factors to consider when commencing this exercise. Beyond a simple list of forces and factors, readers will see categories and relationships, and points for potential conflict, which must be addressed by various stakeholders to eliminate or mitigate

social taps in ways that facilitate sustainable QOL and community wellness. The process of similarly mapping any complex socioeconomic system can help to identify idiosyncratic factors, relationships, conflicts and dilemmas in the system, and actionable clarity. This in turn can enable catalytic institutions – business, government, NGOs – to design and to deliver policies, products and services to best meet stakeholder needs, sustainably and in ways that enhance community well-being and individual QOL for as many stakeholders as possible.

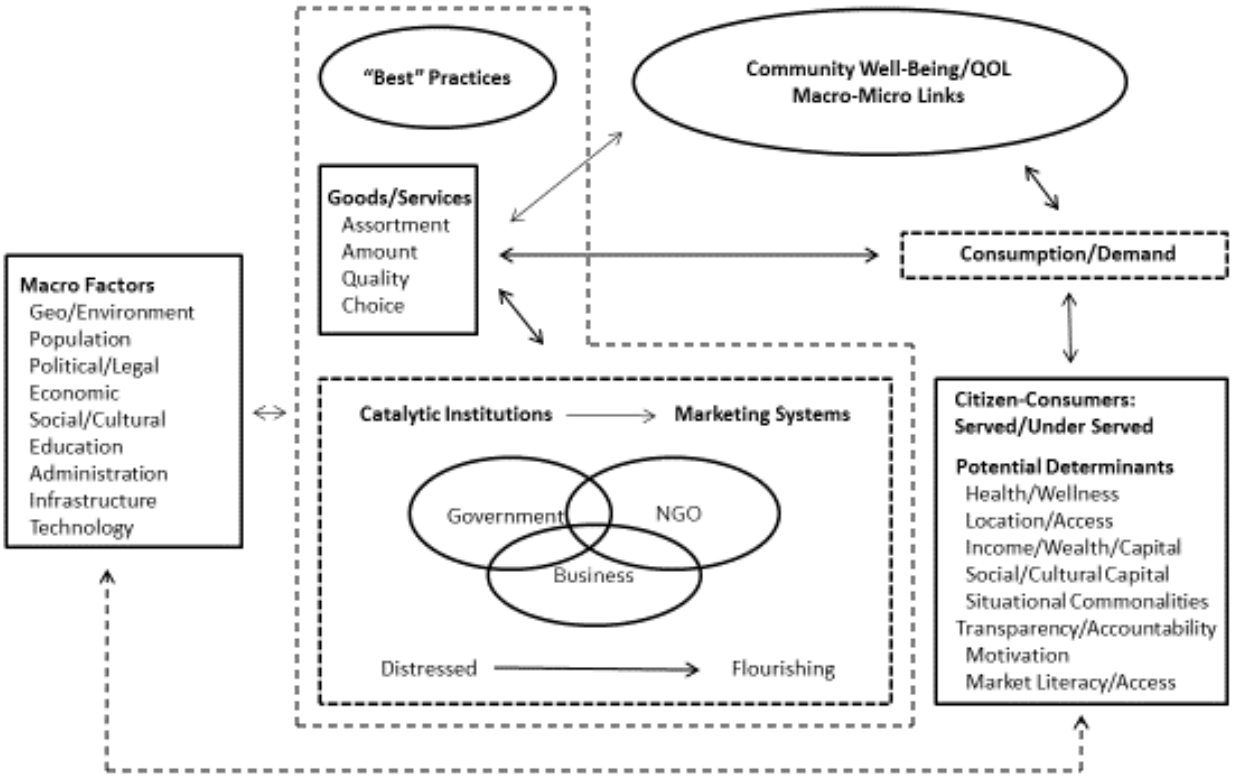

Figure 6. Toward a Systemic Framework to Facilitate Sustainable QOL in Distressed and Flourishing Communities (see also Shultz et al. 2012; Shultz et al. 2017, p. 412).

Stakeholder Inclusion

Everyone and every organization with vested interests in the resources/community to be sustained should be considered. The more proximate to the resource and the more vulnerable the people and physical assets in the system, the greater the consideration. This would suggest that the Vietnamese government should be more tolerant of protestors immediately victimized by and who draw attention to environmental catastrophes, rather than to arrest them (Ives 2016); indeed, one might consider such protests to be a patriotic duty to protect the motherland and its citizens, now and for future generations. When possible, all stakeholders should be included in the negotiations, or be represented by credible and accountable agents, about how best to develop or use sustainably and equitably the resource considered; about fair, equitable and appropriate restitution when resources have been degraded or destroyed. In Vietnam's case, this requires inclusion of exogenous stakeholders who greatly affect the Vietnamese system.

Two types of exogenous stakeholders immediately come to mind: (1) Foreign Direct Investors (FDI) operating inside the country, which have the potential both to benefit and to harm Vietnam; (2) States and organizations beyond Vietnam's borders, which also can benefit or harm Vietnam. Foreign Direct Investment (FDI) accounts for a significant portion of Vietnam's economic growth since 1988 (Anwar and Nguyen 2010). FDI has come from companies such as Nike, which receives increasingly high marks for sustainability and corporate responsibility in Vietnam. It would also include Formosa Ha Tinh Steel Corporation, which also provides some benefits to Vietnam, but has come under great criticism for an environmental disaster requiring at least $500 million in restitution (Tiezzi 2016). Similarly, Vietnamese authorities caught

Vedan, a Taiwanese company, poisoning the Thi Vai River southeast of Ho Chi Minh City in 2008, and concluded Vedan had done this continuously since 1994 (Nguyen and Pham 2012).

Further to the dynamics of systemic complexity and potentially conflicting interests among stakeholders inside and outside Vietnam, consider the policies/activities of upstream countries of the Mekong River Basin beyond Vietnam's border, as well as Vietnamese policies/activities in the Mekong Delta. This collection of countries, governments, organizations and ethnic groups; farmers, fishers, investors and manufacturers instigate complex and often conflicting endeavors that enhance economic well-being for some, in the short run, but pose great risk to the sustainable well-being of many, in the long run. The repercussions of this unsustainable exploitation will be felt internally and externally.

To be specific, the Mekong-basin countries beyond Vietnam's borders dam the river for hydro-power, harvest the Mekong's flora and fauna, and pour toxic effluent into the river, before it reaches the Cuu Long (Mekong River Commission 2017); Vietnamese meanwhile engage in agricultural and aquacultural practices and various other development initiatives that exploit and degrade the river, fouling it with heavy metals, silt, and increased salinity, while also tapping and polluting groundwater at unsustainable levels. Unchecked, these policies and practices may render the Mekong Delta little more than a putrid marsh, within the next century (Dapice 2012; McPherson and Le 2017). Coupled with climate change, erosion and rising sea levels, an even grimmer forecast posits upwards of 40% of Vietnam's Cuu Long could be submerged by 2100; the effects on fish and rice harvests would be devastating not only to Vietnamese but also to hundreds of millions of food consumers dependent upon the delta's bounty (Fawthrop 2016; Peters and Heynckes 2017). Note too, that as the Mekong River and the Cuu Long are threatened, other watersheds and groundwater resources are being similarly harmed and

exploited across Vietnam (Bui, Fenn, Digregorio and Du 2015, Water Environment Partnership in Asia 2015).

Stated differently, *everyone* – globally – is a stakeholder of this resource that transcends national boundaries. Furthermore, previously indicated demands for energy and food, and the water integral to them are expected only to increase. A fundamental shift by local and global consumer-citizens, and the catalytic institutions largely responsible for sustainable policies, goods and services, is imperative (Shultz 2015; McPherson and Le 2017).

Marketing via Cooperation and Constructive Engagement

Macromarketing encourages catalytic institutions to cooperate and to engage constructively with Vietnam and other countries of the Mekong River Basin. Influential exogenous stakeholders generally regarded to be committed to transparency, sustainability and multi-win outcomes when working with and in Vietnam are indispensable, as they share or invest in goods, services and best practices. The Lower Mekong Initiative (U.S. Department of State 2017) and the Mekong River Commission (2017), for example, hold promise vis-á-vis sustainable food, energy, health, peace and prosperity via mutually-beneficial cooperation related thereto (Shultz 2015). Such cooperative initiatives also help Vietnam influence other countries and organizations less committed to Vietnam's sustainability, by offering clear and measurable best-practice alternatives to goods, services and projects that harm the environment and the people dependent upon them.

When thoughtfully invoked, traditional marketing activities – product development and branding, distribution and value-chain management, pricing and exchange mechanisms, and information dissemination and consumer education – are vital to a macromarketing orientation of constructive engagement and systemically sustainable impact (Peterson 2013; Shultz 2015).

Consider the reach and impact of a decision by French-retailer Carrefour not to source fish products from the Cuu Long, which resulted in a sharp drop in sales among Spanish consumers, and in turn is forcing changes to aquaculture in Vietnam (Chanh 2017). Indeed, marketing is an indispensable component of catalytic institutions. Technology transfer, brand diffusion, market development and other forms of constructive engagement by MNCs and smaller companies – especially transparent companies committed to Corporate Social Responsibility (CSR), whose boards, managers and employees must answer to stockholders and global consumers who demand safe products and sustainable business practices – are well positioned to influence and to enhance sustainability of the Mekong River Basin, including of course the Cuu Long and Vietnam more generally.

Conclusion

This article introduces readers to a macromarketing view of sustainability in Vietnam. In so doing, the authors articulate the concept, rationale, relevance and imperative of macromarketing. Ratings of the Sustainable Society Index are used to gauge the current picture of Vietnam's sustainable development. In general, Vietnam faces challenges similar to challenges faced by other developing countries that give priority to economic development. Energy usage continues to increase year after year without sufficient attention given to energy savings, while natural resources – water, for example – are exploited unsustainably. Education continues to lag many other countries of the world, while civil liberties do not compare to those of Western countries. The outline here is that in the future, a society might not have the most efficacious mix of knowledge, culture and incentives to give priority to policies that will sustain its own development. This becomes increasingly apparent as Vietnam struggles to power its expanding and globally integrated economy, while feeding 100 million of its own citizens and millions

more people in export markets. The millions of highly-polluting motor scooters zipping around Vietnam's cities give one indication of this lack of cultural capital and incentive structure, now (Hodal 2017). Vietnam's Department of Transport and Hanoi's city council have agreed to bank motorbikes and scooters by 2030, to ease congestion and reduce air pollution, which may portend more visionary policies across sectors and ministries, as does expressed interest in renewable energy and other sustainable practices (Quynh 2017).

External to Vietnam, the behaviors of upstream countries for the Mekong (China, Myanmar, Laos, Thailand and Cambodia) in the damming of the Mekong River has resulted in adverse consequences for the Mekong River in Vietnam. Vietnam's own policies have resulted in threats to ground water in forms of pollution and excess consumption. The Mekong Delta consequently evinces higher levels of toxins and lower levels of nutrient-rich sediment, which not only threatens fish and other aquatic life, but is resulting in the sinking of the Mekong Delta. Such environmental degradation threatens the economies of countries in the region and beyond. Vietnam appears to be first to experience such economic reversal. Scientists in Can Tho, a city of 1.2 million in the Mekong Delta, warn that 27% of Can Tho's GDP furnished by the Delta, could be lost by 2036 (McPherson and Le 2017), while longer term outcomes project greater and more systemically/globally felt devastation (Peters and Heynckes 2017).

As proposed in this study, it is imperative for catalytic institutions, including governments in the region, the Vietnamese government at all levels, NGOs, farmers, fishers, and businesses and investors (both national and multinational) to address – *tangibly, systemically and measurably* -- the vital issues of sustainable development and to commence system-wide, sustainable policies and practices. Cooperative and integrative leadership is needed. Credible forces – transparent companies and other organizations committed to scientific, measurable

practices and policies to enhance sustainability – must constructively engage Vietnam. Vietnamese that discover and report threats to the environment should be encouraged and celebrated for their contributions to the long-term, best interests of the nation. Incentives should be given to investors that tangibly and measurably demonstrate business practices to drive or at least to complement sustainable economic development. Citizen-consumers around the world can also influence this effort: demanding more sustainable policies, products, services and practices; greater transparency; accountability for unsustainable assaults on various ecosystems inside Vietnam and on external ecosystems affecting Vietnam. Accordingly, a macromarketing approach to sustainable development can improve the chances of success and enduring well-being for Vietnam and all its stakeholders.

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